## **BARYONS** ($p \to \Omega^-$, $N^* \to \Omega^*$, charm baryons, pentaquarks)

New in the 2006 Review:

| | | | |
|---|---|---|---|
| $p \to \Omega^-$ | 16 | | 63 PAPERS |
| $N^* \to \Omega^*$ | 9 | | |
| charm baryons | 13 | | |
| pentaquarks | 25 | (mostly negative) | |

ISSUES (not many):

• The neutron lifetime—A new measurement of the neutron lifetime is 6.5 standard deviations from our average of previous results, and 5.6 standard deviations from the previous most precise result. What to do? (The neutron lifetime is an important number!) I pointed out the discrepancy in a footnote to the value, left the value OUT of the average, and put in the header note to the lifetime this statement:

"*The most recent result, that of SEREBROV 05, is so far from other results that it makes no sense to include it in the average. It is up to workers in this field to resolve this issue. Until this major disagreement is understood, our present average of* $885.7 \pm 0.8$ *s must be suspect.*"

After some discussion, the authors of SEREBROV 05 agreed to this treatment. So did my advisor on the neutron, Stuart Freedman.

• Exotic baryons

| | |
|---|---|
| ▷ Martian canals | DEAD |
| ▷ Piltdown Man | DEAD |
| ▷ $N$ rays | DEAD |
| ▷ Anomalous water | DEAD |
| ▷ Cold fusion | DEAD |
| ▷ Bigfoot | DEAD(?) |
| ▷ PENTAQUARKS | DEAD |